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CAMBRIDGE PRIMARY Science

Activity Book

3



Jon Board and Alan Cross

Completely Cambridge
Cambridge resources
for
Cambridge qualifications

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NOTICE TO TEACHERS

References to Activities contained in these resources are provided 'as is' and information provided is on the understanding that teachers and technicians shall undertake a thorough and appropriate risk assessment before undertaking any of the Activities listed. Cambridge University Press makes no warranties, representations or claims of any kind concerning the Activities. To the extent permitted by law, Cambridge University Press will not be liable for any loss, injury, claim, liability or damage of any kind resulting from the use of the Activities.



Introduction

The *Cambridge Primary Science* series has been developed to match the Cambridge International Examinations Primary Science curriculum framework. It is a fun, flexible and easy-to-use course that gives both learners and teachers the support they need. In keeping with the aims of the curriculum itself, it encourages learners to be actively engaged with the content, and to develop enquiry skills as well as subject knowledge.

This Activity Book for Stage 3 is designed to be used alongside the Learner's Book for the same stage, ISBN 978-1-107-61141-2.

In this book you will find a single-page exercise to accompany each topic presented in the Learner's Book, as well as a language review exercise at the end of each unit to practise the key vocabulary. The exercises are designed to be completed as pen-and-paper exercises, and learners can work on them individually or in pairs or small groups. You can set the exercises as in-class work or homework.

There are different styles of exercise throughout to maintain interest and to suit different purposes. The main aims of the exercises in this book are:

- to consolidate the subject knowledge presented in the Learner's Book
- to encourage learners to apply the knowledge in new situations, thus developing understanding
- to practise scientific language
- to develop scientific enquiry skills such as presenting and interpreting results from investigations.

The answers to the exercises in this Activity Book are available in the Teacher's Resource for Stage 3, ISBN 978-1-107-61150-4. This resource also contains extensive guidance on all the topics, ideas for classroom activities, and guidance notes on all the activities presented in Learner's Book. You will also find a large collection of worksheets.

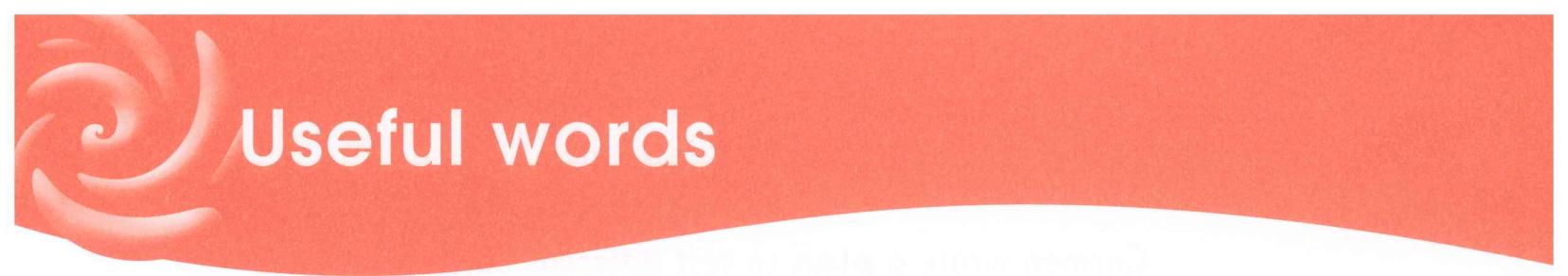
We hope you enjoy using this series.

With best wishes,
the Cambridge Primary Science team.



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Useful words

bar chart a chart that shows results using bars; the length of each bar shows the size of the result

Yusef drew a **bar chart** to show the amount of water absorbed by different paper towels.

conclusion what you find out in an investigation

Kai's **conclusion** was 'From the objects I have tested, only the paper clip is magnetic. The others are non-magnetic.'

group to put things with other things that are the same in some way

Anas put the animals with fur in one **group** and the animals without fur into another group.

investigate to do a test or experiment to find something out

Nasrat was told to **investigate** which objects were magnetic.

match to draw a line to make a link between things (or link or join)

Zain drew lines to **match** pictures of animals to pictures of their babies.

plan to decide how to do an investigation

Carmen wrote a **plan** to test different objects with a magnet.

predict to think about what the result of an investigation might be

Habib was asked to **predict** which objects would be magnetic.

record to write or draw results to show what happened

Zina wrote the results in a table to **record** what happened.

research to look for information by investigation by using books or the internet

Jamil used the internet to **research** friction.

results the observations or measurements made in a test

Bo's **results** showed that many objects were not magnetic.

sort to put things into groups

Amy was asked to **sort** the materials into those that were hard and those that were soft.

table a way of writing numbers or words in rows and columns

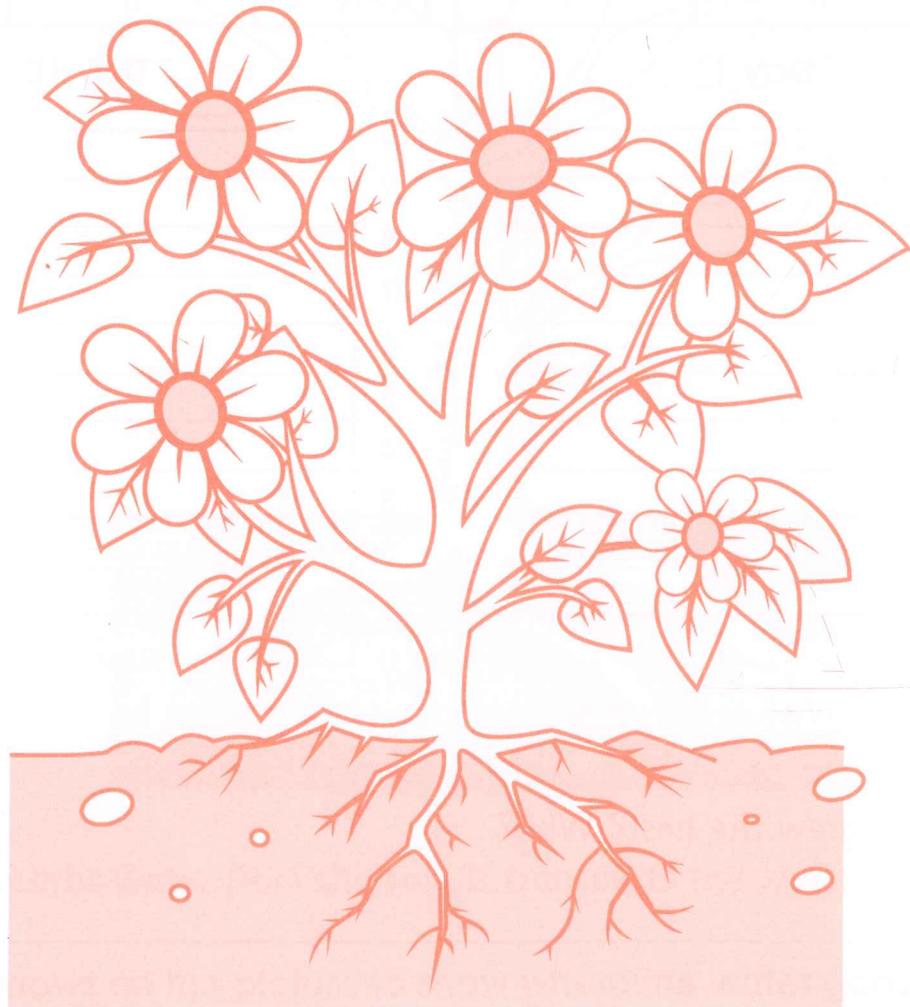
The **table** showed which objects were magnetic and which were non-magnetic.

Exercise 1.1 Plants and their parts

This exercise checks that you can name the parts of a plant.

Label this plant using these words.

roots stem leaves flowers



Exercise 1.2 Plants need water

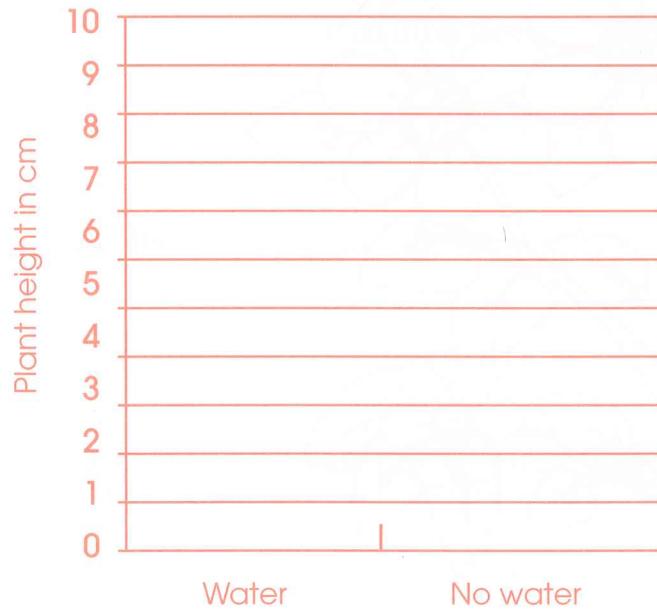
In this exercise, you will practise drawing bar charts.

Subhan had two plants that were the same. He gave water to one plant. He did not give water to the other. He measured the height of the plants every day.

Here are the results on day 1 and day 10. Draw the bar charts for each day.

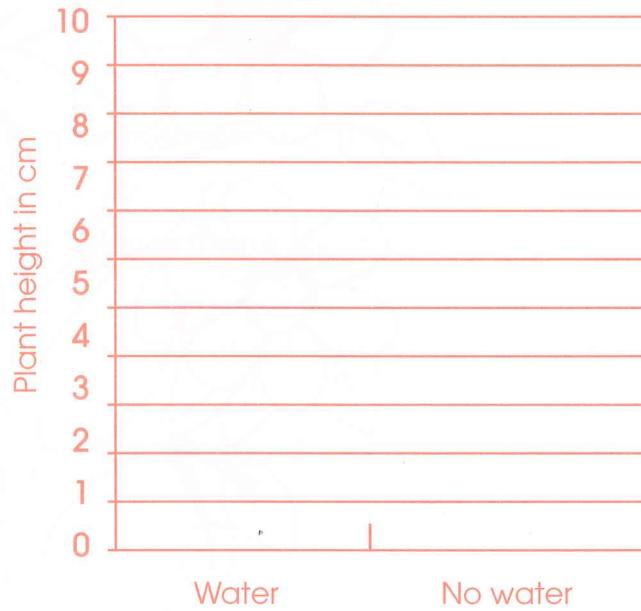
| | With water in cm | No water in cm |
|-------|---------------------|-------------------|
| Day 1 | 4 | 4 |

Day 1



| | With water in cm | No water in cm |
|--------|---------------------|-------------------|
| Day 10 | 8 | 3 |

Day 10



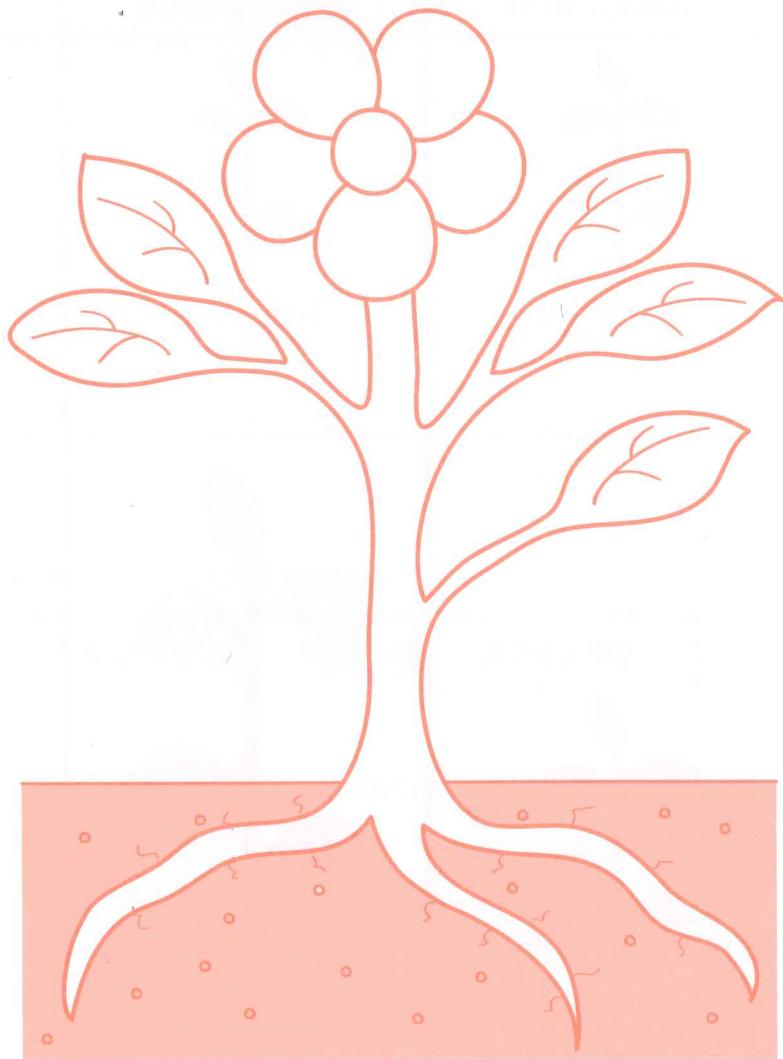
Which plant grew the best? Why?

Exercise 1.3 Transporting water

This exercise helps you to understand how water is transported inside a plant.

- 1 Label this plant using these words.

roots stem leaves



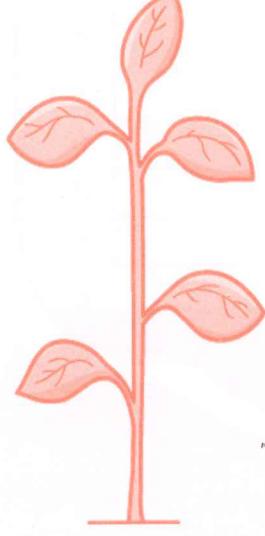
The plant absorbs water from the soil. It transports the water to the leaves.

- 2 Draw arrows on the picture to show where the water goes.

Exercise 1.4 Plant growth and temperature

In this exercise, you will practise measuring the height of plants and record the results in a table.

These young plants are growing. Measure the height of the plants using a ruler. Write your results in the table.

| | Cold place | Warm place | Hot place |
|--------|--|---|--|
| Day 1 |  Height is _____ |  Height is _____ |  Height is _____ |
| Day 14 |  Height is _____ |  Height is _____ |  Height is _____ |

Explain the difference in height.

Language review

This exercise checks that you understand the scientific words used in this unit.

- 1 Use these words in sentences. The first one has been done for you.

water: Plants need water to grow.

roots: _____

stem: _____

leaves: _____

flower: _____

- 2 Put these words in the right place.

transports healthy unhealthy

A _____ plant has enough water and light and is kept warm.

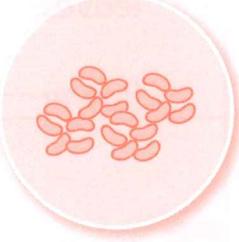
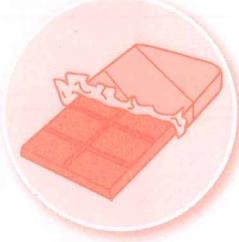
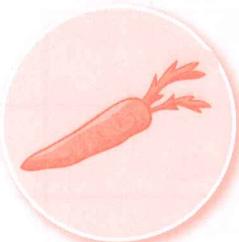
A plant with _____ roots, stem or leaves will not grow well.

The stem _____ water around the plant.

Exercise 2.1 Food groups

This exercise checks that you understand food groups.

Draw and label these foods in the right food group below.



The first one has been done for you.

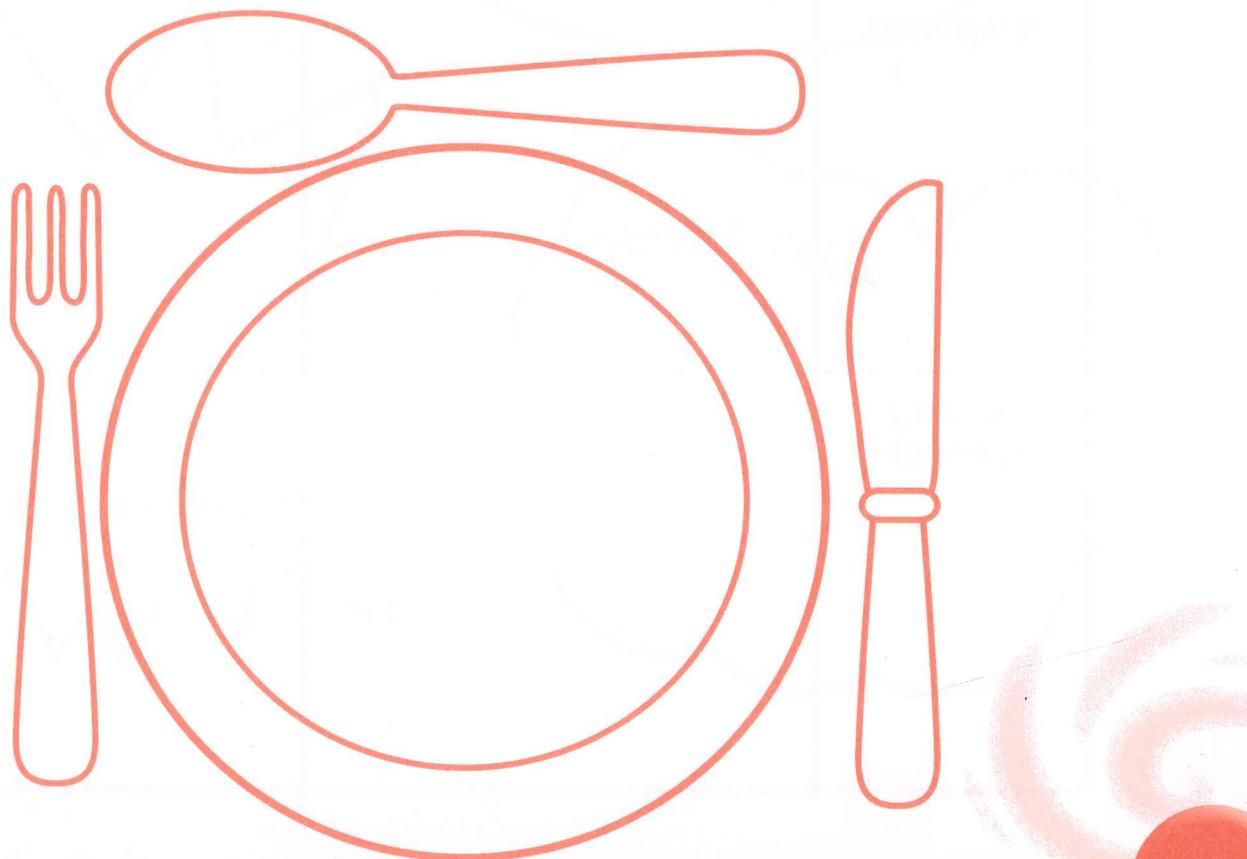
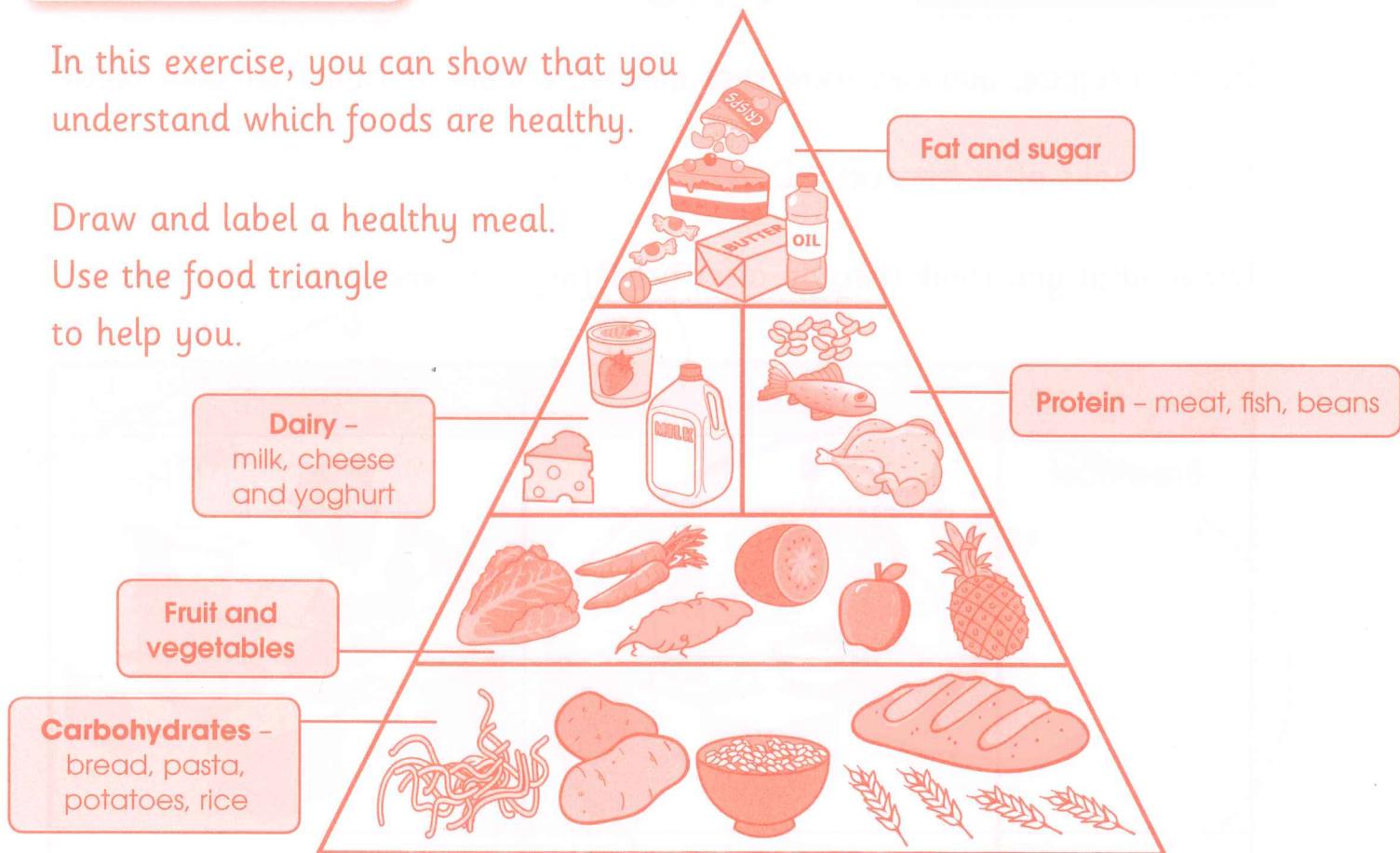
| Carbohydrate | Fruit and vegetables | Protein | Dairy | Fat and sugar |
|--------------|----------------------|---------|---|---------------|
| | | |  cheese | |

Exercise 2.2 A healthy meal

In this exercise, you can show that you understand which foods are healthy.

Draw and label a healthy meal.

Use the food triangle
to help you.

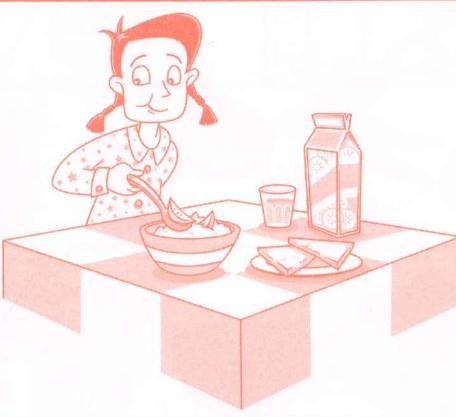


Exercise 2.3 Keeping teeth healthy

In this exercise, you can show that you know how to look after your teeth.

Sunita looks after her teeth, Dinesh does not.

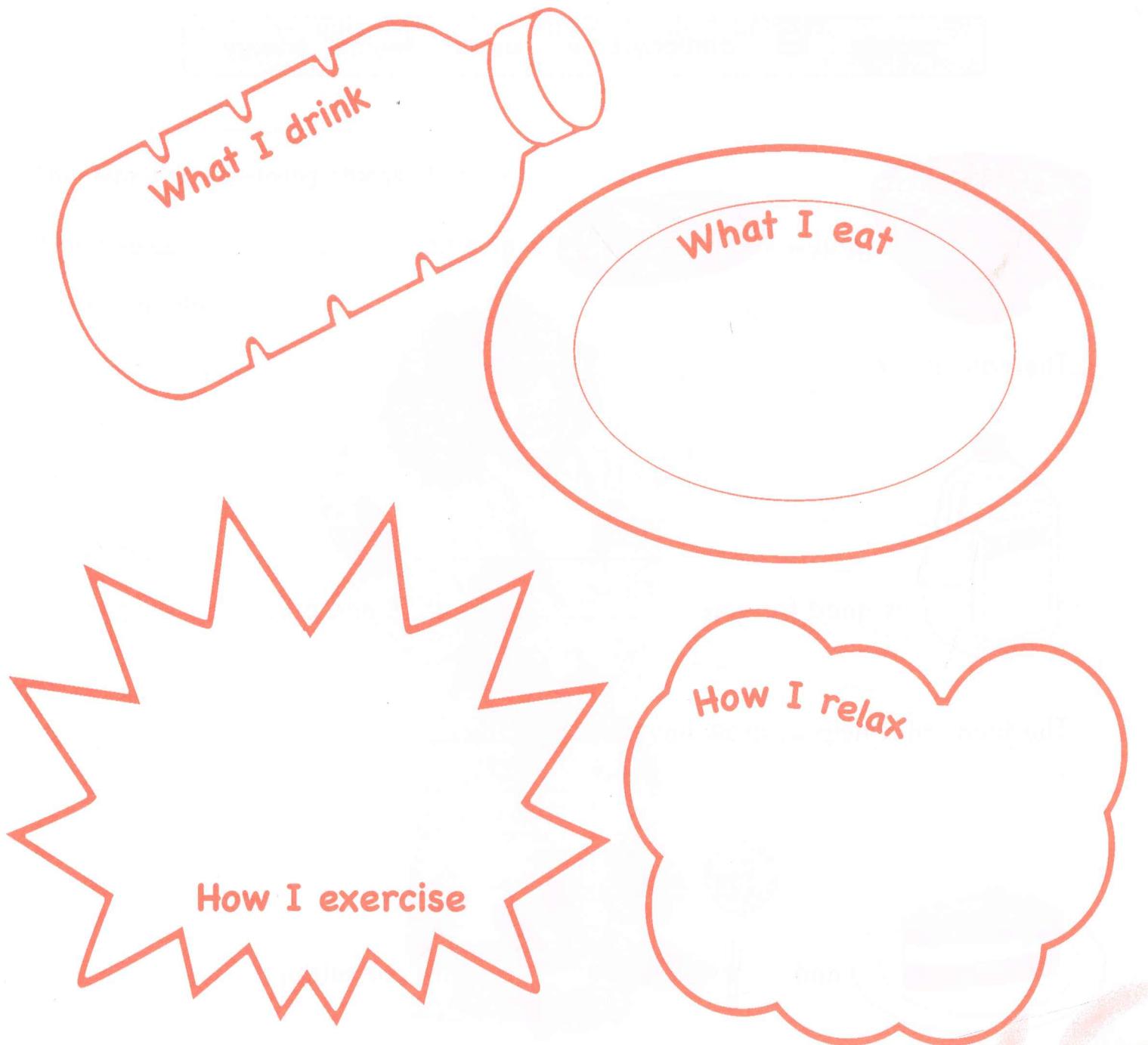
Draw what you think they do after breakfast and what they eat as snacks.

| | Sunita | Dinesh |
|-----------------|--|---|
| Breakfast |  |  |
| After breakfast | | |
| Having a snack | | |

Exercise 2.4 How I keep healthy

In this exercise, you can show everything you do to keep healthy.

Draw and label how you keep healthy in these different ways.



Language review

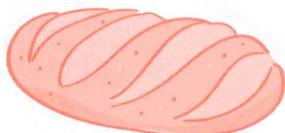
This exercise checks that you understand the scientific words used in this unit.

Write the missing words in these sentences using these words.

protein fat carbohydrate sugar teeth energy



and



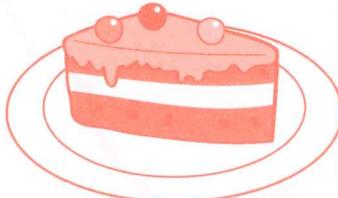
give us _____.

They are in the _____ food group.



is good for your _____ and bones.

The foods that help us grow have lots of _____.



and



are unhealthy.

They have too much _____ and _____.

3

Living things

Exercise 3.1 Making a sign

In this exercise, you will look at the seven life processes.

This way for non-living things that:

do not move

do not breathe

have no senses

do not need food and water

do not make waste

do not reproduce

do not grow

This way for living things that:

move



Help Safiya finish the living things sign.

Exercise 3.2 Life cycles

In this exercise, you will complete some life cycles.

Fill in the gaps using these words.

caterpillar tadpole butterfly egg hen larva seed

frog spawn → _____ → froglet → frog

egg → _____ → chrysalis → _____

_____ → chick → _____

egg → _____ → pupa → ladybug

_____ → seedling → young plant → plant with
fruit containing seed

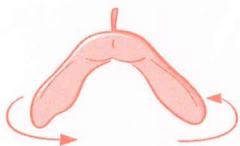
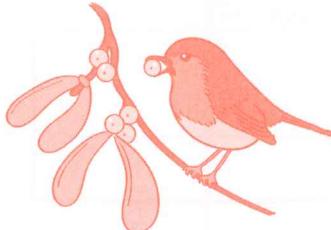
Exercise 3.3 How do seeds move?

In this exercise, you will look at different ways in which seeds can move.

Flowers move when they turn to face the Sun or close at night.

Many plants make seeds which can move a long way.

Look at these seeds. Write about or draw how they move.

| Seed | How will this move? |
|---|---------------------|
|  | |
|  | |
|  | |
|  | |

Exercise 3.4 Similar and different

In this exercise, you will look at the similarities and differences between you and two friends.

Complete the information sheet about yourself.

Me

My hair colour is _____

My eye colour is _____

My skin tone is _____

Do I have freckles? _____

Do I wear glasses? _____

Now look at two friends and complete the information for them.

My friend _____

has similar _____

He/she has different _____

My friend _____

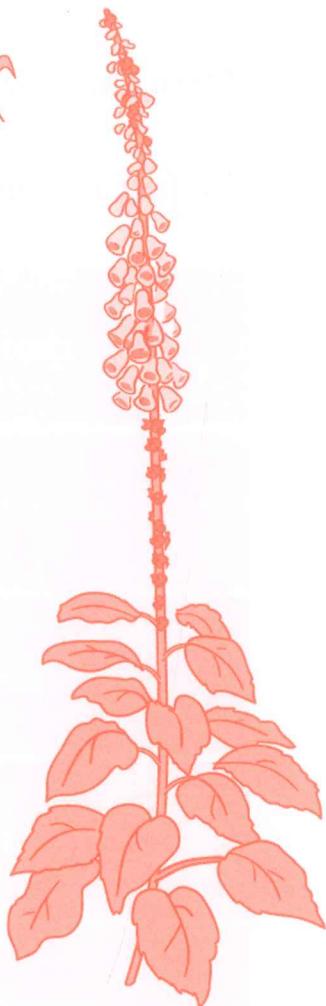
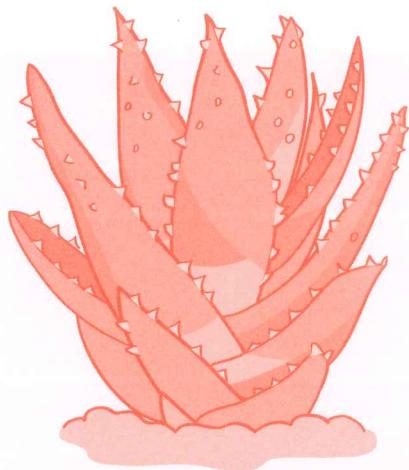
has similar _____

He/she has different _____

Exercise 3.5 Sorting plants

In this exercise, you will sort some plants.

Kilim is planting his garden.
He has these plants and wants
to group them in his flower bed.



Can you help him sort them?

Draw a line from each plant to the correct box.

| Tall plants | |
|--------------|-------------|
| no flower | with flower |
| Short plants | |
| no flower | with flower |

Language review

This exercise checks that you understand the scientific words used in this unit.

Match these words to their meanings.

The first one has been done for you.

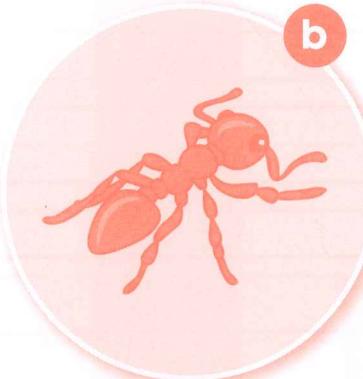
| | |
|-------------|---------------------------------|
| diet | mostly green plants we eat |
| exercise | breathing |
| vegetables | when my body is well and strong |
| adult | the food I eat |
| growth | not dead |
| respiration | moving which keeps me healthy |
| healthy | living things get bigger |
| alive | a grown up |

Exercise 4.1

How loud is the sound?

In this exercise, you will put sounds in order according to how loud they are.

Here are some things that make a noise. Put them in order from the loudest to the quietest.



loudest >>>>>>>>>>>>> softer >>>>>>>>>>>>>> quietest

Exercise 4.2 Taste test

In this exercise, you will interpret data from a taste test.

Ramos tested all his friends to see what foods they liked. Here are the results.



| Food | Number of people who like | Number of people who dislike |
|-------------------|---------------------------|------------------------------|
| biscuits | 10 | 4 |
| apple | 12 | 2 |
| chicken | 6 | 8 |
| grapes | 11 | 3 |
| cooked plain rice | 9 | 5 |
| cake | 12 | 2 |

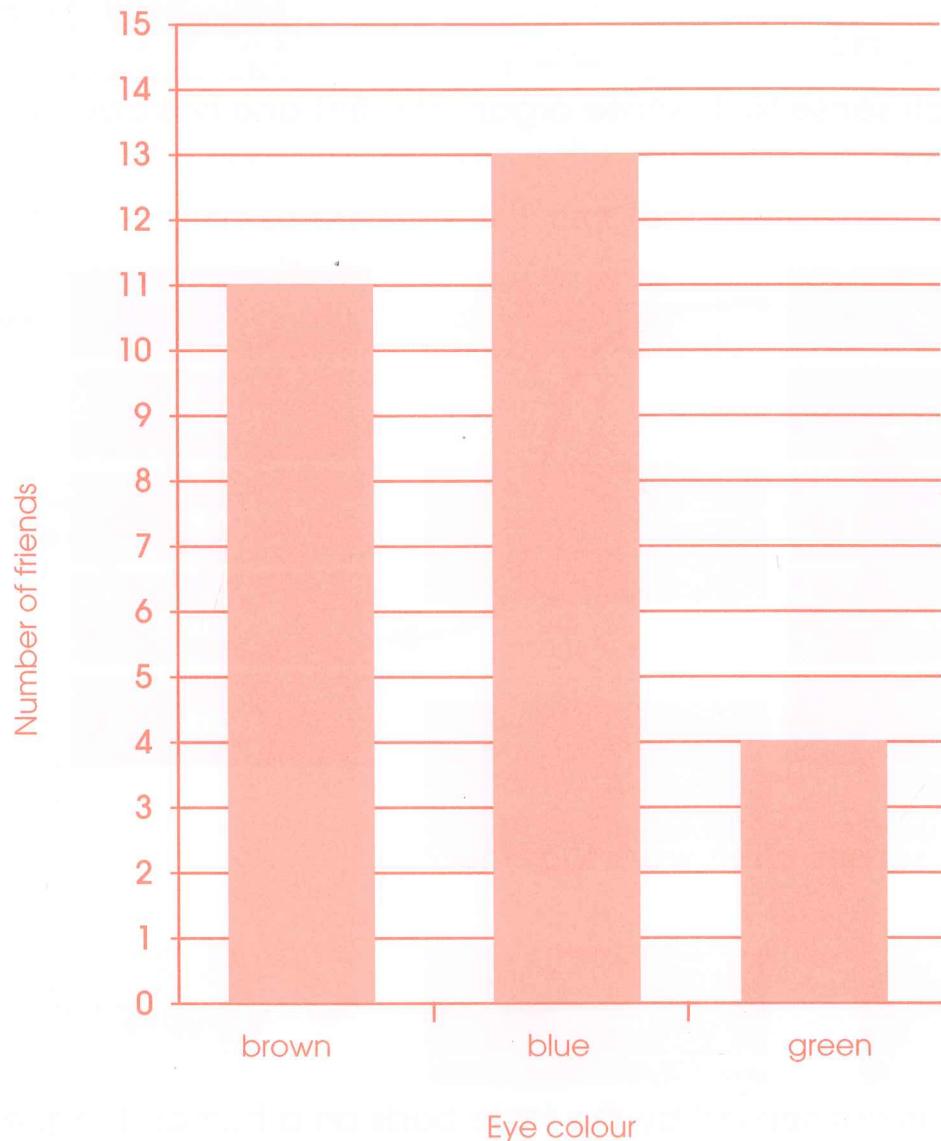
1 Which food did people like the best?

2 Which food was least popular?

3 Is there a pattern (for example, what type of foods are most popular)?

Exercise 4.3 Eye colour

Tariq has recorded his friends' eye colours on this graph.



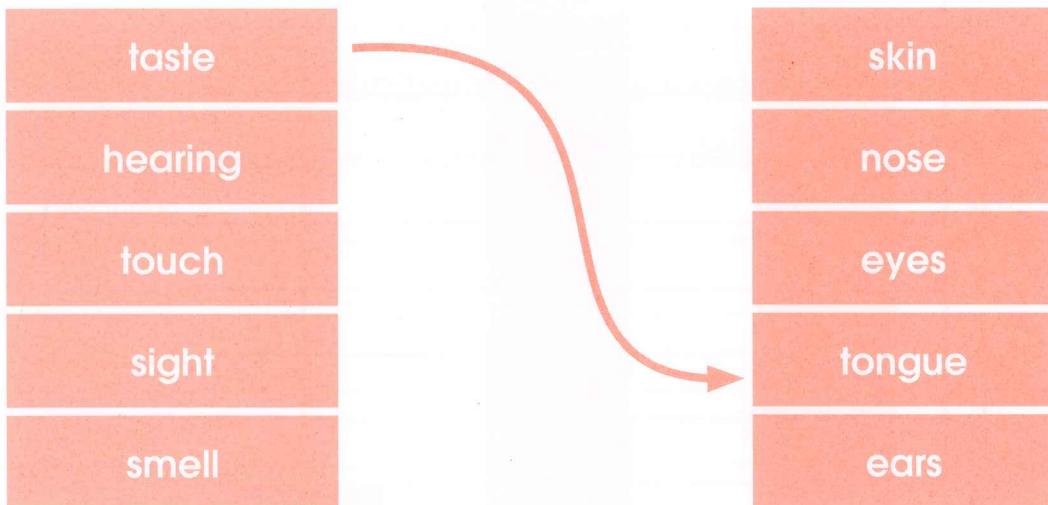
1 Which eye colour is the most common?

2 Which eye colour is the least common?

Language review

This exercise checks that you understand the scientific words used in this unit.

1 Match each sense to its sense organ. The first one has been done for you.



2 Which two senses often work together?

_____ and _____

3 Which tastes are sensed by the taste buds on a human tongue?

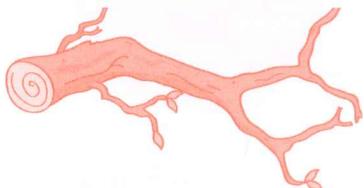
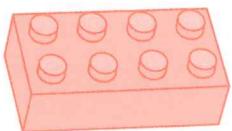
5

Investigating materials

Exercise 5.1 Can you guess the material?

This exercise checks that you know the properties of some materials.

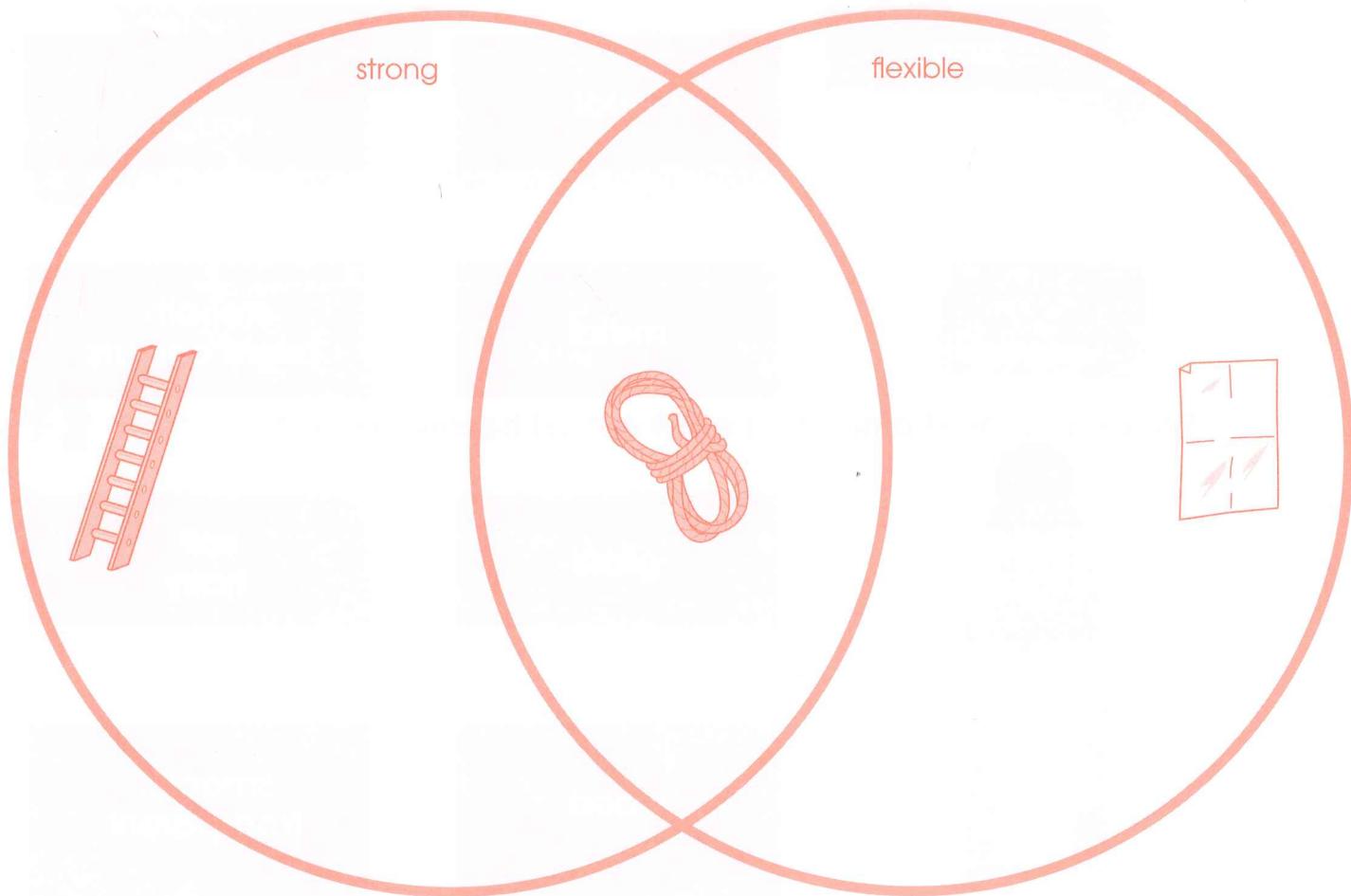
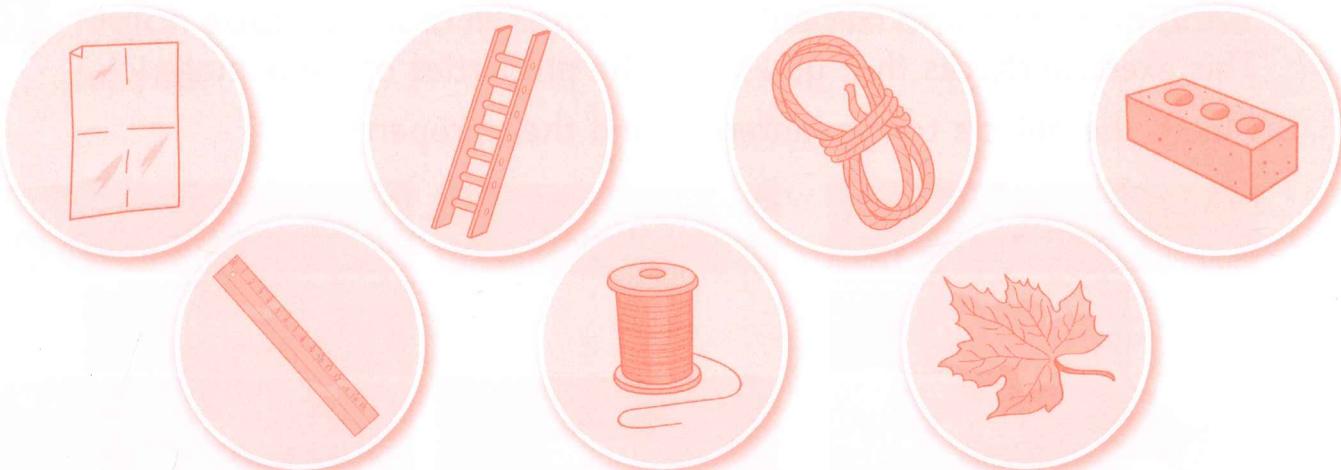
Match the objects to the materials and their properties.

| Object | Material | Properties |
|---|----------|------------------------|
|  | plastic | strong, shiny |
|  | wood | brown, rough |
|  | metal | smooth, bright colours |
|  | glass | soft, hairy |
|  | wood | smooth, transparent |

Exercise 5.2 Sorting objects

In this exercise, you will sort some objects using a Venn diagram.

Some have been done for you.



Exercise 5.3

What is this material useful for?

In this exercise, you can show what different materials are used for.

In each box below, write the name of a material and then some of the things we use it for.

The first one has been done for you.

| | |
|------------------|----------------|
| <u>glass</u> | |
| We use it for: | We use it for: |
| drinking glasses | |
| spectacles | greenhouses |
| TV screens | windows |
| | |
| We use it for: | We use it for: |

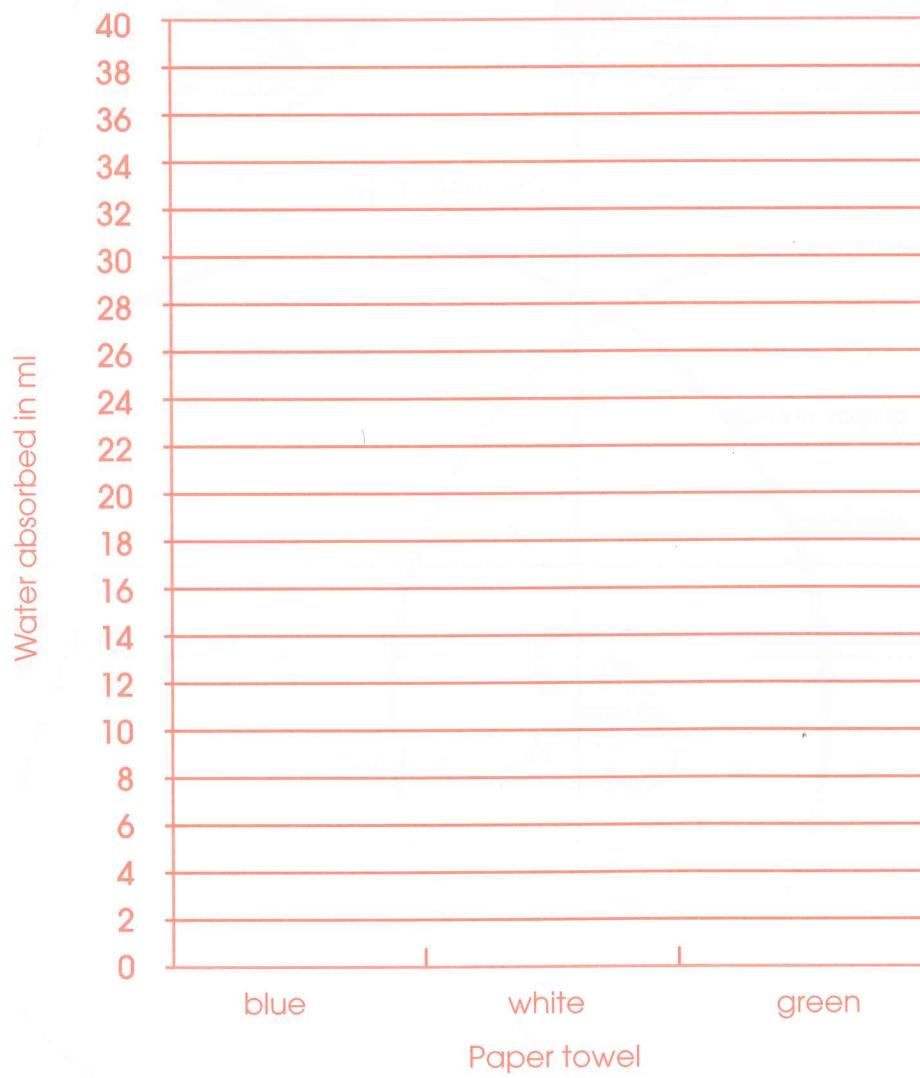
Exercise 5.4 Testing materials

In this exercise, you will practise drawing a bar chart.

Hong investigated which paper towel was the most absorbent.

Draw a bar chart of her results.

| Paper towel | Blue | White | Green |
|----------------------|------|-------|-------|
| Water absorbed in ml | 12 | 36 | 22 |



Which paper towel was the most absorbent? _____

Exercise 5.5 Magnetic materials

In this exercise, you can show that you understand which materials are magnetic.

Razi and Zoe investigated which materials were magnetic.
Finish Razi's table of results.

| Object | Material | Magnetic or non-magnetic |
|------------|----------|--------------------------|
| pencil | wood | non-magnetic |
| paper clip | | magnetic |
| chair | plastic | |
| magazine | | |
| scissors | metal | |

Which of the materials were magnetic?

Language review

This exercise checks that you understand the scientific words used in this unit.

1 Complete these sentences about the properties of materials.

Metals are h_____ . Paper is f_____ .

When wood is cut it is r_____ but it can

be made s_____ .

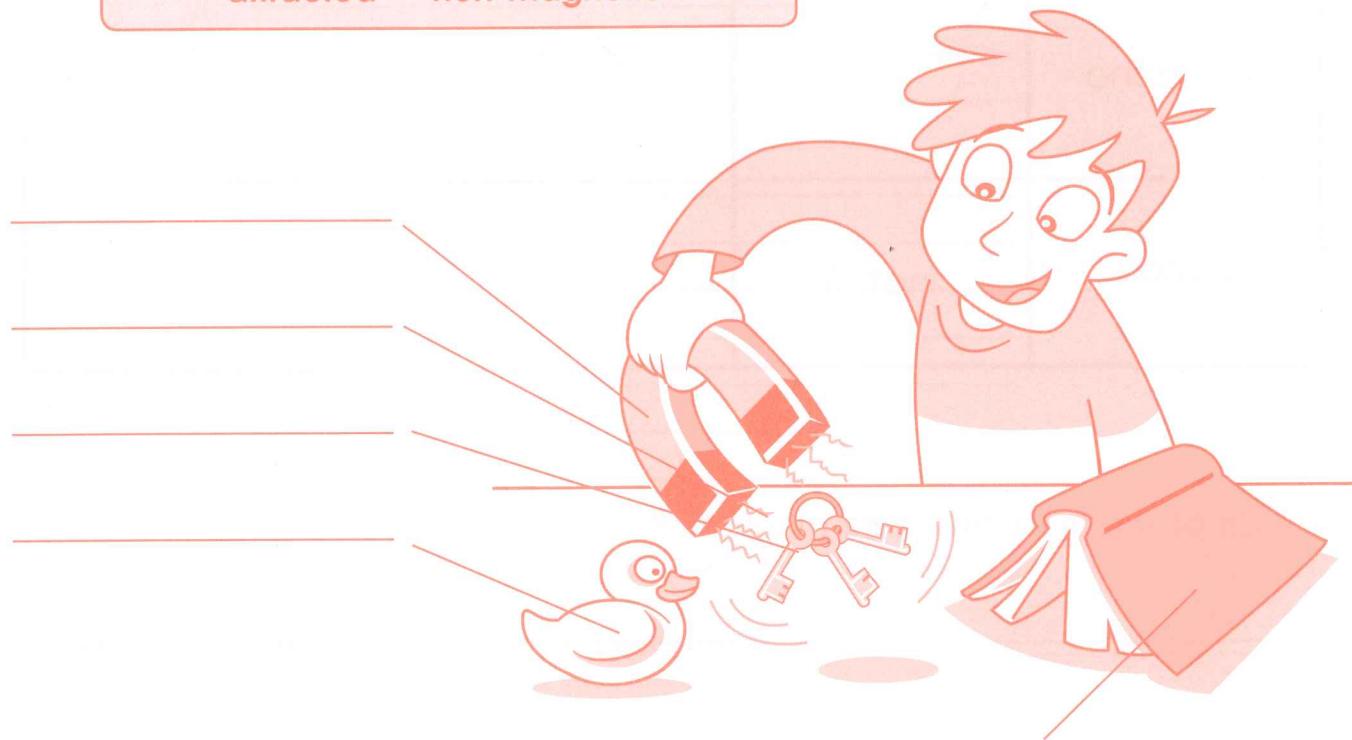
This plastic coat is w_____ .



2 Label this picture with these words.

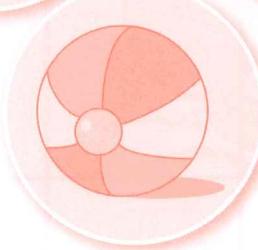
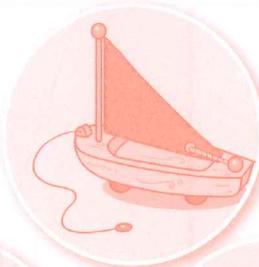
magnetic non-magnetic magnet

attracted non-magnetic



Exercise 6.1 Push and pull

In this exercise, you will think about things that are pushed and pulled. The pictures are to help you, but do add your own ideas. Draw or write them in the boxes below.

**Things I push****Things I pull**

Exercise 6.2 Changing shape

In this exercise, you will think about how the shape of objects and materials can be changed using forces.

Draw the object and say how you would change its shape.

| Object | What type of force could I use to change the shape? |
|--------------|---|
| wood | |
| sandcastle | |
| elastic band | |

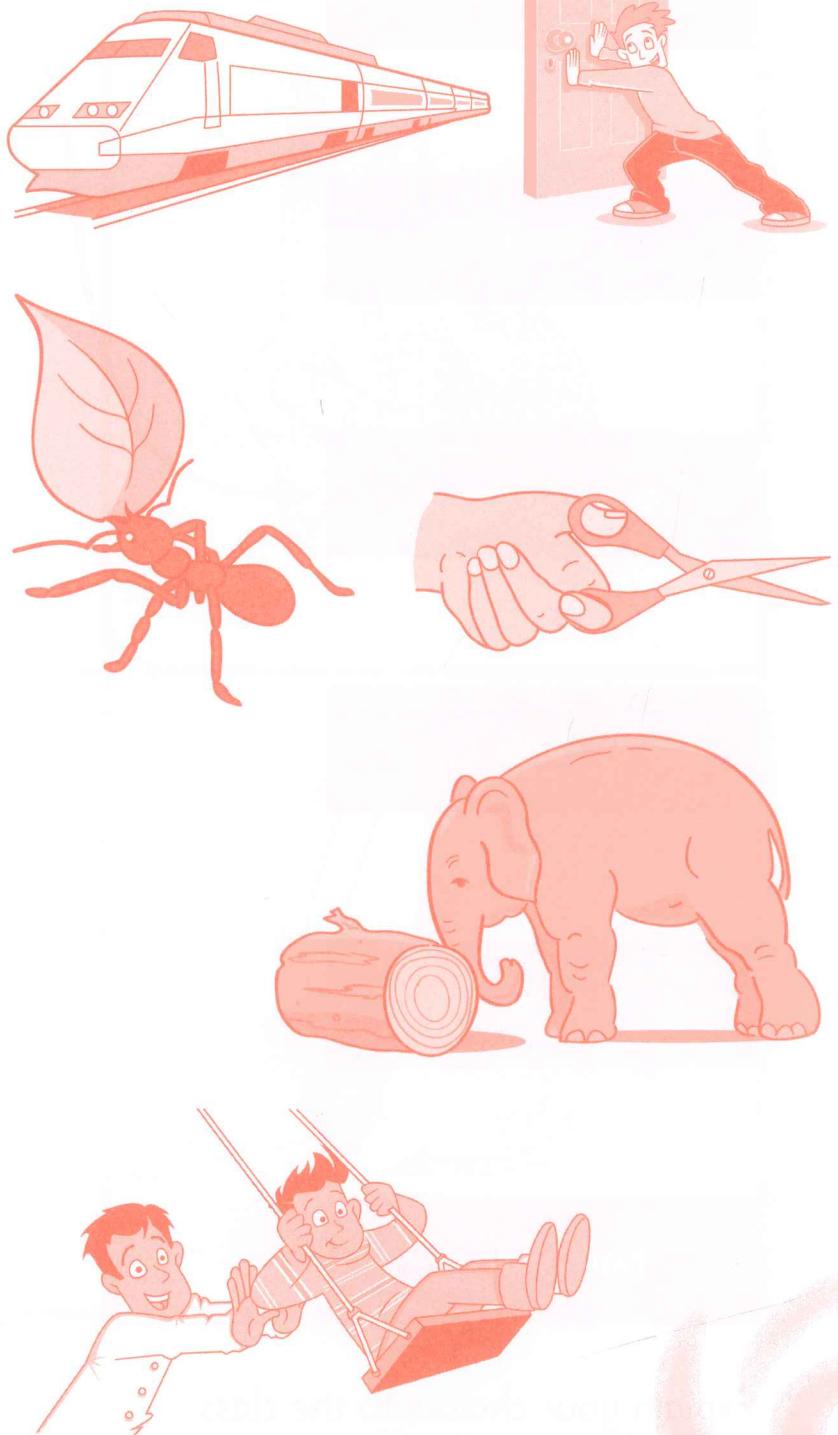
Exercise 6.3 Small force or big force?

In this exercise, you will sort pictures into those that show a big force and those that show a small force.

Draw a line from each picture to the correct box.

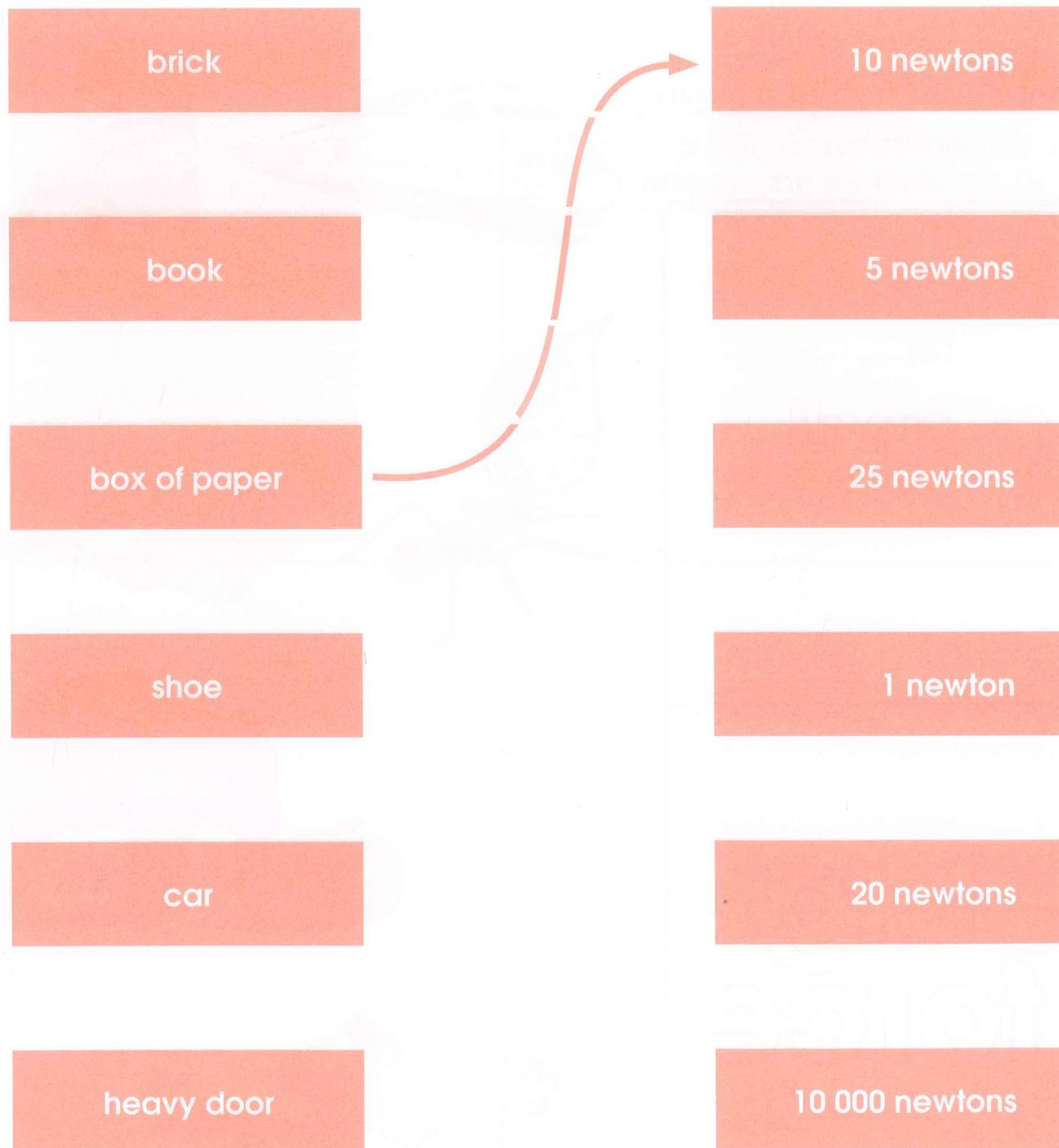
**small
force**

**big
force**



Exercise 6.4 How much force?

In this exercise, match each object to the size of force needed to make it start to move. The first one has been done for you.

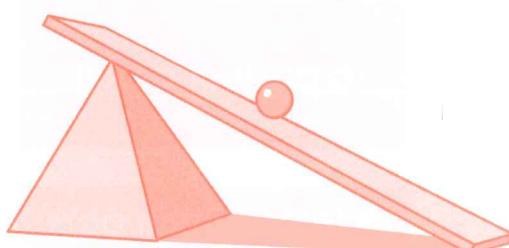


Explain your choices to the class.

Exercise 6.5 Friction

In this exercise, you will think about where friction is acting.

Look at the pictures. Draw an arrow to show where friction is acting.



Language review

This exercise checks that you understand the scientific words used in this unit.

Match each word to its meaning.

The first one has been done for you.

| | |
|------------|---|
| force | opposite of push |
| newton | a machine for measuring forces |
| pull | opposite of pull |
| forcemeter | a push or a pull |
| friction | a force which acts when two surfaces are in contact |
| push | the unit of force |

CAMBRIDGE PRIMARY Science

Activity Book

3

Cambridge Primary Science is a flexible, engaging course written specifically for the Cambridge Primary Science curriculum framework (Stages 1–6). The course offers plenty of teaching ideas to give flexibility, allowing teachers to select activities most appropriate to their classroom and pupils. An enquiry-based style of teaching and learning is stimulated, with the Scientific Enquiry objectives integrated throughout to encourage learning of these skills alongside the scientific concepts. The language level is carefully pitched to be accessible to EAL/ESL learners, with concepts illustrated through diagrams to allow visual understanding and learning.

The Activity Book contains:

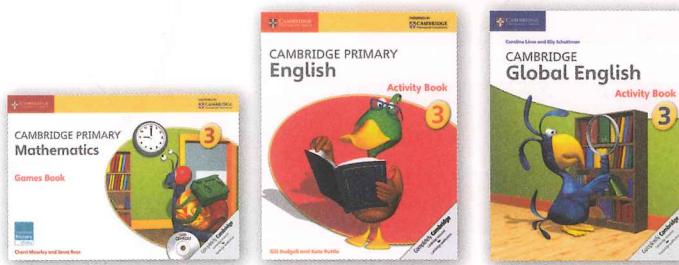
- one exercise to accompany each Topic in the Learner's Book
- exercises that can be completed in class or as homework
- exercises that are designed to consolidate understanding and deepen it by applying knowledge in new situations
- exercises that practise Scientific Enquiry skills
- at the end of each unit, an exercise to practise the core vocabulary from that unit.

Other components of Cambridge Primary Science 3:

Learner's Book 3 ISBN: 978-1-107-61141-2

Teacher's Resource 3 ISBN: 978-1-107-61150-4

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